



Product: [127903A](#)

DataTuff® 5e, 4Pr #22 Sol BC, PO Ins, OS, PVC Jkt, AIA Armor, PVC Jkt, PLTC CMG CM, -40C

[Request Sample](#)

Product Description

Industrial Ethernet Cat 5e, 4 Pair 22AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Inner Jacket, Aluminum Interlock Armor, PVC Outer Jacket, PLTC CMG CM, -40C

Technical Specifications

Product Overview

Suitable Applications:	harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. exposure to rodent, crush, or cut through force, power-limited tray,
------------------------	---

Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs	No. of Elements
Pair(s)	22	Solid	BC - Bare Copper	4	4

Insulation

Element	Material	Color Code
Pair(s)	PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes
--------------	-----

Inner Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	22 AWG (7x30) TC

Inner Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.335 in (8.51 mm)

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	22 AWG (7x30) TC

Armor

Armor Type & Material	Armor Thickness	Diameter Over Armor
AIA - Aluminum Interlock Armor	0.025 in (0.64 mm)	0.565 in (14.4 mm)

Outer Jacket

Separator	Material	Nom. Diameter
Polyester Tape	PVC - Polyvinyl Chloride	0.655 in (16.6 mm)

Overall Cable Diameter (Nominal):	0.655 in (16.6 mm)
-----------------------------------	--------------------

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 Ohm/1000ft)	17 pF/ft (56 pF/m)	330 pF/100m

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
538 ns/100m	45 ns/100m	70%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted) [Ohm]	Max./Min. Fitted Impedance [Ohm]
1	2.0 dB/100m	65.3	62.3	63	60	63.8	60.8	20	100 ± 15	100 ± 15
4	4.1 dB/100m	56.3	53.3	51	49	51.7	48.7	23	100 ± 15	100 ± 15
8	5.8 dB/100m	51.8	48.8	46	43	45.7	42.7	24.5	100 ± 15	100 ± 15
10	6.5 dB/100m	50.3	47.3	43	41	43.8	40.8	25	100 ± 15	100 ± 15
16	8.2 dB/100m	47.3	44.3	39	36	39.7	36.7	25	100 ± 15	100 ± 15
20	9.3 dB/100m	45.8	42.8	36.5	33.5	37.7	34.7	25	100 ± 15	100 ± 15
25	10.4 dB/100m	44.3	41.3	33.9	30.9	35.8	32.8	24.3	100 ± 15	100 ± 15
31.25	11.7 dB/100m	42.9	39.9	31	28	33.9	30.9	23.6	100 ± 15	100 ± 15
62.5	17.0 dB/100m	38.4	35.4	22	19	27.8	24.8	21.5	100 ± 15	100 ± 15
100	22.0 dB/100m	35.3	32.3	14	11	23.8	20.8	20.1	100 ± 15	
310	41.8 dB/100m									
350	44.9 dB/100m									

Voltage

UL Voltage Rating
300 V (CM)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Storage
75°C	-40°C To +75°C	-40°C To +75°C

Bend Radius

Stationary Min.
7.86 in (200 mm)

Max. Pull Tension:	100 lbs (45 kg)
Bulk Cable Weight:	157 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL 1685 (UL Loading), FT4
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CM, PLTC
CEC / C(UL) Compliance:	CMG, HL, CSA CMG, HL, -40C
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e
ISO/IEC Compliance:	ISO/IEC 1801 Cat 5e

Product Notes

Notes:	Operating temperatures are subject to length de-rating
--------	--

History

Update and Revision:	Revision Number: 0.272 Revision Date: 12-12-2023
----------------------	--

Part Numbers

Variants

Item #	UPC
127903A 0101000	612825439073
127903A 0105000	612825439080

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Belden Wire & Cable:](#)

[127903A 0101000](#) [127903A 0105000](#)